FINAL REVISED REGULATORY IMPACT STATEMENT
BEACH ACT STANDARDS AND RECLASSIFICATION RULE
6 NYCRR PARTS 700, 703, and 890

The New York State Department of Environmental Conservation (Department or DEC) has adopted revisions to New York's water quality standards to meet the requirements of the federal Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000 (P.L. 106-284). The Department has also adopted upgrades to the classification of two water bodies.

1. Statutory Authority

The statutory authority for adoption of water quality standards and classifications is found in the Environmental Conservation Law (ECL) Articles 3 and 17. ECL Article 3 provides that the Commissioner of the Department may adopt regulations to carry out the purposes of the ECL in general. ECL Article 17 directs the Department to classify the waters of the state in accordance with best usage and maintain reasonable standards consistent with public health and public enjoyment of the waters. Specifically, Section 17-0301 provides that the Department "shall group the designated waters of the state into classes. Such classification shall be made in accordance with considerations of best usage in the interest of the public" and further that the Department "shall adopt and assign standards of quality and purity for each such classification necessary for the public use or benefit contemplated by such classification."

2. Legislative Objectives

The legislative objectives related to this adopted rule are to "conserve, improve and protect [the State's] natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social wellbeing." ECL 1-0101(1). Furthermore, it is the policy

of the State to guarantee that the "widest range of beneficial uses of the environment is attained without risk to health or safety, unnecessary degradation or other undesirable or unintended consequences." ECL 1-0101 (3) (b). In furtherance of these broad policies, specific objectives are to "maintain reasonable standards of purity of the waters of the state consistent with public health and public enjoyment thereof..." ECL 17-0101.

3. Needs and Benefits

The adopted rule adds new fecal indicator criteria for all coastal recreation waters and a new definition for the term "coastal recreation waters," which are needed to meet the requirements of the federal BEACH Act. The adopted standards are consistent with the United States Environmental Protection Agency's (USEPA's) 2012 Recreational Water Quality Criteria (RWQC). The RWQC are USEPA's recommendations for protecting human health in waters designated for primary contact recreation use. The adopted standards are: a 30-day Geometric Mean (GM) of 35 cfu/100mL and a statistical threshold value (STV) of 130 cfu/100mL for enterococci, and a 30-day GM of 126 cfu/100mL and a STV of 410 cfu/100mL for *E. coli*. Existing total and fecal coliform standards for recreational use protection were not repealed.

In evaluating the waters that would be defined as "coastal recreation waters," and covered by this adopted rule, the Department identified two large coastal waters, which are currently designated as Class I, and, therefore, are not designated as having a best usage of primary contact recreation: Upper New York Bay (6 NYCRR § 890.6 - Item No. 6); and a portion of Lower New York Bay (6 NYCRR § 890.6 - Item No. 4). In 1985, the Department determined that these waters were unable to support a best usage of primary contact recreation. See Use Attainability Analysis of the New York Harbor Complex, August 1985, Page 17. Considering the water

quality improvements in these two coastal waterbodies and that they are adjacent to numerous public beaches, the Department has determined that they should have a designated best usage of primary contact recreation and, as a result, need to be reclassified from Class I to Class SB. See New York Harbor Water Quality Report, 2016.

In 2015, the Department revised its regulations to require that Class I and SD waters be of quality suitable for swimming. However, that 2015 Class I and SD rule making did not revise the best usages of those waters. The best usages of those waters remained "secondary contact recreation and fishing," and "fishing," respectively. Therefore, reclassification of 6 NYCRR § 890.6 - Item Nos. 4 and 6 was necessary to make them coastal recreation waters.

Considering the water quality improvements in these two waterbodies and that they are adjacent to numerous public beaches, the Department determined that they should be reclassified from Class I to Class SB to designate the best usage of primary contact recreation. The adopted pathogen standards thus apply to the reclassified waters, consistent with the federal BEACH Act requirements for all marine coastal recreation waters, as well as a more stringent dissolved oxygen standard for Class SB waters.

4. Costs

The Department reviewed this adopted rule and identified the likely anticipated costs. The Department identified 41 municipal wastewater treatment plants ranging from 0.1 million gallons per day (MGD) to 135 MGD treatment capacity discharging to coastal recreation waters (including waters reclassified by this rule). Sixteen (16) of the 41 municipal wastewater treatment plants discharge to the Great Lakes, while the remaining 25 facilities discharge to marine coastal recreation waters (including waters reclassified by this rule). Additionally, 4

Private, Commercial, and Institutional (PCI) facilities were identified as surface water sanitary dischargers to marine coastal recreation waters.

The financial impact due to the adoption of the *E. coli* standard is considered to be *de minimus*, as existing treatment facilities with disinfection discharging to the Great Lakes are expected to meet the adopted standard without significant adjustments. However, there may be an increased cost for laboratory analysis, depending on how the Department implements the adopted *E. coli* standards for dischargers to the Great Lakes. DEC has not repealed the existing total and fecal coliform standards. Incorporation of the standards into State Pollutant Discharge Elimination System (SPDES) permits, after adoption of the rule, will comply with all applicable laws, regulations, and criteria. The approach will be protective of the best uses, while avoiding unnecessary duplication.

Additional costs for laboratory analysis of up to $73,350 may occur should DEC require facilities discharging to the Great Lakes to sample and report both *E. coli* and fecal coliform. However, if DEC supplants fecal coliform in permits with *E. coli*, there will be no additional cost because the analytical costs for these two indicators are the same. DEC revised the express terms so that the proposed standards for *E. coli* in Class A, A-Special, AA, and AA-Special waters would not necessarily apply year-round. This revision may reduce the need for samples outside of the primary contact recreation season and thus reduce costs for laboratory analysis.

Under the adopted enterococci standards, 25 municipal wastewater treatment plants and 4 PCI facilities discharging to marine coastal recreation waters (including waters reclassified by this rule) will likely need to upgrade their existing disinfection systems or incur increased operation and maintenance (O&M) costs resulting from higher dosing. The Department

analyzed the costs associated with disinfection using both chlorination and ultraviolet radiation (UV).

The estimated unit cost for building a UV disinfection system is $512,676/MGD design flow in capital costs with an estimated O&M cost of $10,000/MGD per year. Given that the total capital cost for conversion to UV disinfection is significantly higher than other alternatives, the estimated financial impact assumes that the impacted facilities will not choose the UV option. For facilities that already have an existing UV disinfection system, the most cost-effective alternative is to double the UV light intensity or dosing, thus the financial impact of $10,000/MGD per year will result solely from increased O&M expenditures. Construction of a de-chlorination facility is estimated to cost $220,000/MGD. The average O&M cost of approximately $18,600/MGD per year was used to determine the potential financial impact associated with O&M for facilities utilizing chlorination and de-chlorination and $27,900/MGD per year for facilities that currently chlorinate but will need to add de-chlorination facilities. The Department estimates that 9 municipal wastewater treatment facilities and 2 PCI facilities will incur a collective capital cost of approximately $55 million to construct chlorination/dechlorination and that all 29 impacted facilities will incur increased O&M costs, collectively totaling approximately $14 million per year.

There may also be an increased cost for laboratory analysis, depending on how the Department implements the adopted enterococci standards for dischargers to the marine coastal recreation waters. DEC has not repealed the existing total and fecal coliform standards. Incorporation of the standards into SPDES permits, after adoption of the rule, will comply with all applicable laws, regulations, and criteria. The approach will be protective of the best uses, while avoiding unnecessary duplication.

Additional costs for laboratory analysis of up to $208,620 may occur should DEC require such facilities to sample and report both enterococci and coliform. However, if DEC supplants coliform in permits with enterococci, there will be no additional cost because the analytical costs for these two indicators are the same. DEC revised the express terms so that the proposed standards for enterococci in Class SA waters would not necessarily apply year-round. This revision may reduce the need for samples outside of the primary contact recreation season and thus reduce costs for laboratory analysis.

Certain coastal Class SB waters (including waters reclassified from Class I to Class SB by this rule) are impacted by Combined Sewer Overflows (CSO). The New York City (NYC) CSO control program is being implemented through the development of Long Term Control Plans (LTCPs). The LTCPs must meet the regulatory requirements of the EPA's CSO Control Policy as per the Clean Water Act (CWA) section 402 (q) and adhere to the terms of the 2005 Consent Order between NYSDEC and NYC (Case No. CO2-20000107-8), as modified in 2008, 2009, 2012, 2015, 2016, and 2017 (collectively the "Consent Order"). LTCPs evaluate the cost-effectiveness of a range of control options/strategies, including up to 100% CSO capture. Given that NYC must comply with EPA's CSO control policy through the development and implementation of these LTCPs, no additional costs are anticipated from this rulemaking beyond those already required by the Consent Order, the LTCPs, NYC's SPDES Permits, the CSO Control Policy and CWA section 402(q). These existing and continuing requirements are expected to result in the submission of approvable Jamaica Bay and City-Wide LTCPs that will include projects designed to achieve the highest attainable condition within the CSO impacted waterbodies. For the waterbodies subject to the proposed rule, the LTCP analysis includes a

comparison of compliance with enterococci criteria. This analysis predicts that the proposed new criteria does not necessitate additional CSO projects at this time.

The adopted reclassification will also cause a more stringent, existing Class SB aquatic life standard for Dissolved Oxygen (DO) to apply to these waters. The existing DO standard for Class I is a minimum of 4.0 mg/L, while the existing DO standard for Class SB is a minimum of 4.8 mg/L, with allowable excursions below 4.8 mg/L for limited periods of time. An examination of the current DO levels in these water bodies reveals that the new standard will be attained and will not likely result in additional costs.

5. Local Government Mandates

As described in this document, this adopted rule revised and updated New York State's water quality standards which in turn will be incorporated into permits issued under Titles 7 and 8 of Article 17 of the Environmental Conservation Law. Any county, city, town, village, school district, fire district, or other special district permitted to discharge under the above statute may be responsible for complying with revised effluent limitations resulting from the adopted rule. The Department has reviewed potentially affected permits and included the estimated costs to comply with the adopted rule discussed above. Beyond these costs, this rule does not impose any additional program, service, duty, or responsibility upon any county, city, town, village, school district, fire district, or other special district.

6. Paperwork

As part of the SPDES program, all significant permittees (for permit classifications see the Department's Technical & Operational Guidance Series (TOGS) 1.2.2) are required to

periodically report monitoring data for substances included in their permit. The adopted regulations are not expected to increase or decrease the number of significant SPDES permittees. Dischargers that may be required to report on a parameter for which they were previously not regulated will have to maintain records and report the discharge level of the newly regulated parameter on existing reports. This adopted rule does not require the submission of any new forms.

7. Duplication

Both federal law and federal regulations set forth requirements for states regarding water quality standards (uses and criteria). Under federal law, promulgation of surface water standards is primarily a state responsibility. EPA provides oversight and guidance and approves state standards for surface water but does not promulgate standards that apply nationwide.

8. Alternatives

The Department considered the "no action" alternative which would place the State in the position of not meeting the federal BEACH Act. The no action alternative was rejected as it was determined to be less protective of coastal recreation waters than the adopted rule and would not implement the requirements of the BEACH Act. The "no action" alternative for the reclassification was also rejected because the reclassification is appropriate at this time due to of improvements in water quality since 1985 and because the two large coastal waters are adjacent to numerous public beaches.

9. Federal Standards

The adopted regulatory changes do not exceed any federal minimum standards.

10. Compliance Schedule

The adopted rule will take effect on the date specified in the Notice of Adoption. However, the Department recognizes that it may be unreasonable, both physically and fiscally, to expect regulated parties to comply with the regulations immediately. After the rulemaking becomes effective it will be implemented in permits when they are modified. If additional treatment is required, a compliance schedule may be included in the permit on a case-by-case basis and may require the permittee to submit a report describing their chosen treatment alternative and include a schedule for construction. Under such a scenario, the Department would review and, if appropriate, would approve the report before construction would commence. Although it is difficult to estimate, with accuracy, the amount of time necessary for regulated parties to achieve compliance with the adopted rule, it is expected that the Department will be able to review, modify, and renew affected permits within five years of the effective date of promulgation.